



City of Harrisonburg, Virginia

MS4 Program Plan

For the VSMP General Permit Registration Statement for Small Municipal Separate Storm Sewer Systems (MS4)

Permit No. VAR04

Effective Date: July 9, 2008

Expiration Date: July 8, 2013

Report Prepared by:
Thanh H. Dang
Public Works Department
320 East Mosby Road
Harrisonburg, VA 22801
(540) 434 – 5928
thanhd@harrisonburgva.gov

Revised: September 2009
Revised: January 2009
Revised: December 2008
November 2007

Table of Contents

1	Introduction	4
1.1	Background	4
1.1.1	Total Maximum Daily Load	6
1.2	Purpose of MS4 Program Plan	6
1.3	MS4 Program Annual Report	7
2	Program Overview.....	8
2.1	Organizational Structure.....	8
2.2	Financial and Staff Resources	8
2.3	Legal Authority	8
3	MCM 1 & 2: Public Education and Outreach and Public Involvement/ Participation	9
3.1	BMP: Soliciting Public Opinion through Promotion of MS4 Program Plan & Annual Report 9	
3.2	BMP: Clean Stream Campaign	10
3.3	BMP: General Public Brochures & Recreational Guides.....	12
3.4	BMP: MS4 Stormwater Program Website	13
3.5	BMP: Pollution “Hotline”	14
3.6	BMP: Event Participation & Reaching Diverse Audiences	15
3.7	BMP: Forming Partnerships	17
3.8	BMP: Educational Programs – K-12 and University Partnerships.....	18
3.9	BMP: Blacks Run/ Downtown CleanUp Day	20
3.10	BMP: Household Hazardous Waste Collection & Used Oil Recycling Program	22
3.11	BMP: Yard Debris Collection	23
3.12	BMP: Adopt-A-Street/ Adopt-A-Stream/ Street and Stream Clean Up Activities.....	24
3.13	BMP: Pet Waste Management.....	26
3.14	BMP: Streamside Plantings & Other Community Projects	27
4	MCM 3: Illicit Discharge Detection & Elimination	29
4.1	BMP: Program to Detect and Eliminate Illicit Discharges.....	29
4.2	BMP: Storm Drain System Map.....	31
4.3	BMP: Outfall Reconnaissance Program	32
4.4	BMP: Spill Response and Prevention.....	33
4.5	BMP: Sanitary Sewer System Maintenance, Overflow, and Spill Prevention	35
4.6	BMP: Septic Systems	36
4.7	BMP: Biological Monitoring.....	37
5	MCM 4: Construction Site Stormwater Runoff Control	38
5.1	BMP: Ordinance to Require Erosion & Sediment Controls	38
5.2	BMP: Design and Construction Standards Manual	40
5.3	BMP: Require VSMP Permit for Construction Activities.....	41
6	MCM 5: Post-Construction Stormwater Management in New Development & Redevelopment.....	43
6.1	BMP: Ordinance to Address Post-Construction Runoff.....	43
6.2	BMP: Ensure Adequate Long-Term Maintenance of Stormwater Management Facilities 45	
6.3	BMP: Track All Known Permanent Stormwater Management Facilities	46
7	MCM 6: Pollution Prevention/ Good Housekeeping for Municipal Operations	48
7.1	BMP: Public Facilities Operation & Maintenance	48
7.1.1	Training City Staff on Stormwater Pollution	48

7.1.2	Fuel/ Oil Storage Maintenance & Waste Oil Heating Systems	49
7.1.3	Maintain Current Fleet Wash Operations	50
7.1.4	Parks Operation & Maintenance.....	52
7.1.5	Maintenance of Public Swimming Pool	53
7.1.6	Vegetation in City Parks & Properties	54
7.1.7	Pesticide, Herbicide, and Fertilizer Application & Management.....	55
7.1.8	Evaluate All Properties Owned/Operated.....	56
7.2	BMP: Stormwater Infrastructure Operation & Maintenance.....	57
7.2.1	Storm Drain Cleaning/ Inspection Program	57
7.3	BMP: Public Streets Operation & Maintenance.....	58
7.3.1	Street Sweeping Program	58
7.3.2	Salt/Sand Storage and Use.....	59
8	Persons Responsible for Coordinating Small MS4 Stormwater Management Program	61

1 Introduction

1.1 Background

The City of Harrisonburg is an independent city located in the Shenandoah Valley of the Commonwealth of Virginia and is surrounded by Rockingham County. The US Census in 2000 determined the City's population to be 40,453 and that the City is within an Urbanized Area, <http://cfpub.epa.gov/npdes/stormwater/urbanmaps.cfm>.

The City of Harrisonburg's 17.4 square miles is highly urbanized with substantial amounts of impervious surface. The following table describes approximate stream length, drainage areas, and impairments for each watershed within Harrisonburg city limits.

Table 1. Watersheds in Harrisonburg

Watershed	Hydrologic Unit Code (HUC)	Approximate Length (miles)	Approximate Drainage Area (acres)	Impairments
Blacks Run <i>(flows into Cooks Creek)</i>	PS22	8.67	9067	Fecal coliform, E. coli, Sediment
Sunset Heights Branch of Cooks Creek	PS23	2.09	1347.58	Fecal coliform
Dry Fork <i>(flows into Smith Creek)</i>	PS59	0.206	493	Fecal coliform, Sediment
North River-Mill Creek	PS26	No stream	87.44	No Outfalls
Cub Run <i>(flows into South Fork of Shenandoah River)</i>	PS33	No stream	14.75	No Outfalls
Linville Creek <i>(flows into North Fork of Shenandoah River)</i>	PS56	0.08	117.8	E. Coli, Fecal coliform, Sediment

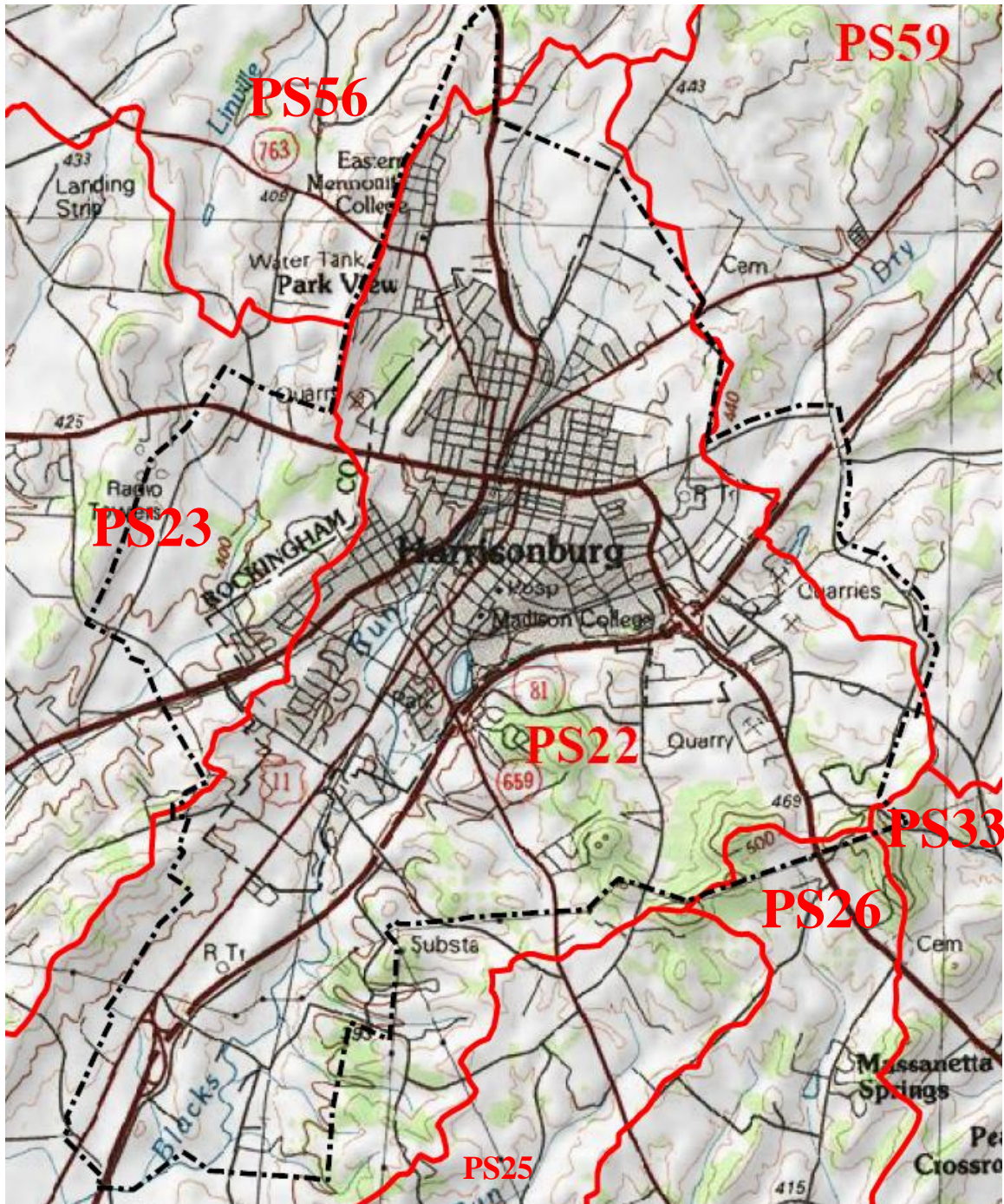


Figure 1. Hydrologic Unit Codes (HUCs) in Harrisonburg, Virginia (Source: Virginia Department of Conservation & Recreation)

The City of Harrisonburg first obtained a permit to discharge stormwater from its municipal separate storm sewer system (MS4) in 2002, under Phase II of the National Stormwater Program, administered at the that time by the Department of Environmental Quality (DEQ). In 2005,

administration of the program was transferred from DEQ to the Department of Conservation and Recreation (DCR).

This MS4 Program Plan describes the programmatic best management practices (BMPs) and programs that the City of Harrisonburg has developed and implemented to meet each of the six minimum control measures and special conditions, namely Total Maximum Daily Load (TMDL) required by regulations for VPDES General Permit coverage for Small Municipal Separate Storm Sewer Systems (MS4s), Permit Number VAR040075. This report accompanies the registration statement (VAR04) submitted by the City to the Virginia Department of Conservation & Recreation (DCR).

1.1.1 Total Maximum Daily Load

Total Maximum Daily Load (TMDL) and TMDL Implementation Plans have not yet been developed for all the watersheds within the City of Harrisonburg's boundaries.

In 2004, DEQ and DCR approved the Total Maximum Daily Load (TMDL) study for Blacks Run and Cooks Creek and the TMDL Implementation Plan was approved in 2006. Blacks Run and Cooks Creek's TMDLs do not have wasteload allocations (WLAs) specified to the City of Harrisonburg's MS4 Permit.

Smith Creek's TMDL was completed in 2004. And specifies a 95% reduction in E. coli (from 2.88E+12 cfu/yr for existing conditions to 1.44E+11 cfu/yr) for the City's MS4. The TMDL also specified a 22% reduction in sediment to wasteload allocation of 19,798 lbs/year. At the time of this MS4 Program Plan submission the Smith Creek TMDL Implementation Plan is being finalized by DEQ and DCR. City of Harrisonburg staff has participated during the development of this implementation plan and once it is approved, this MS4 Program Plan will be updated accordingly.

North River-Mill Creek's TMDL was approved in 2004, the Linville Creek Watershed's TMDL was approved in 2004, and Cub Run in 2004. There were no wasteload allocated to the City of Harrisonburg's MS4 in those TMDLs; likely due to the small size of the drainage areas within city limits.

Complete TMDL development and implementation plans can be found at these respective websites, <http://www.deq.virginia.gov/tmdl/develop.html> and <http://www.deq.virginia.gov/tmdl/implement.html>.

1.2 Purpose of MS4 Program Plan

The MS4 Program Plan details the City of Harrisonburg's comprehensive program to manage the quality of stormwater runoff discharged from the MS4. The MS4 Program Plan is divided into eight chapters. Chapter one discusses the purpose of the MS4 Program Plan and the various components of the Plan. Chapter two provides a brief overview of the City's stormwater program. Chapters three through seven discuss Harrisonburg's program, categorized into the following six minimum control measures:

1. Public education and outreach on stormwater impacts
2. Public involvement and participation
3. Illicit discharge detection and elimination
4. Construction site stormwater runoff control
5. Post-construction runoff control for development and redevelopment
6. Good housekeeping and pollution prevention for municipal operations

Chapters three through seven describe Harrisonburg's MS4 Program Plan in detail utilizing a fact sheet format. Each fact sheet includes:

- General Description
- BMP Goals and Objectives
- Past & Ongoing Achievements
- Related Activities
- Authority
- Contact Information
- Policies and Procedures
- Schedule of Activities
- Other

Chapter eight lists the names of the persons responsible for implementing and coordinating the City's MS4 Stormwater Management Program.

This MS4 Program Plan will be updated as necessary throughout the permit period so that it remains up to date. This MS4 Program Plan will remain on file in the Public Works Department or through Harrisonburg's stormwater website, www.harrisonburgva.gov/stormwater.

Not included in this plan are Past & Ongoing Achievements that have occurred during this permit cycle, which are reported in the MS4 Program Annual Report.

1.3 MS4 Program Annual Report

The MS4 Annual Report will include the status of the BMPs implemented as part of the MS4 Program Plan in the preceding year. The Annual Report will be prepared by the Public Works' Public Works Planner in accordance with 4VAC50-60-1240, Section II.E.3 by October 1 of each year for the previous July 1 – June 30). The MS4 Annual Report is submitted to:

Department of Conservation and Recreation
Division of Soil and Water Conservation
MS4 Stormwater Permitting
203 Governor Street, Suite 206
Richmond, Virginia 23219

Additionally, the deadline to submit a new Registration Statement for the following permit cycle is April 9, 2013.

2 Program Overview

2.1 Organizational Structure

The City of Harrisonburg's Public Works Department coordinates the City's municipal separate storm sewer system (MS4) program. The Public Works Department's Public Works Planner is responsible for developing and updating the MS4 Program Plan. The City Manager is responsible for providing the appropriate certification for any documents. The Department of Community Development, Department of Public Utilities (Water/Sewer), the Department of Parks and Recreation, Police Department and Fire Department are the major contributors to Harrisonburg's MS4 Program although it is recognized that this is a citywide and community-wide program.

2.2 Financial and Staff Resources

The City of Harrisonburg provides funding to support the MS4 Program to the maximum extent practicable and subject to annual appropriations.

Many best management practices are funded through grants awarded by state agencies and other organizations. In general, grants funds are described within the applicable best management practices below.

Harrisonburg does not have stormwater utility program to fund the MS4 program.

2.3 Legal Authority

The City of Harrisonburg has developed its MS4 Program in accordance with the Virginia Stormwater Management Law and Virginia Stormwater Management Regulations. The City also has several ordinances that support the program, details in later chapters.

3 MCM 1 & 2: Public Education and Outreach and Public Involvement/ Participation

Public education efforts aim to project information to the audience whereas *public involvement and participation* encourages volunteerism, public comment and input on policy, and activism in the community. Because many of the City of Harrisonburg's Stormwater activities achieve the goals of both minimum control measures, the two have been combined programmatically and within this plan.

Through distribution of educational materials, bringing the community together at various events, and forming partnerships between many local organizations, the City of Harrisonburg and its partners effectively teach the community about the impacts of stormwater discharges on streams and provide steps that the public can take to reduce impacts of stormwater runoff.

Funds for educational campaigns, outreach materials, streamside plantings and other events come from a variety of appropriations and in-kind contributions by the City and its many partners, grant funding opportunities and donations from local businesses. Funding amounts vary from year to year depending on the best management practices targeted for that year and availability of funds.

3.1 ***BMP: Soliciting Public Opinion through Promotion of MS4 Program Plan & Annual Report***

General Description:	The City of Harrisonburg will promote the availability of the City's MS4 Program Plan for public review and comment. The public will be given the opportunity to review and make comment to the MS4 Program Plan and Annual Reports anytime during the permit cycle and revisions will be made as necessary.
BMP Goals and Objectives:	To solicit public participation in local activities aimed at increasing public knowledge and participation to reduce stormwater pollutant loads and improve water quality.
Past & Ongoing Achievements:	The City will continue to make available the MS4 Program Plan and Annual Reports on the City's Stormwater website, www.harrisonburgva.gov/stormwater .
Related Activities:	Inclusive of MS4 Program Plan
Authority:	4VAC50-60-1240, Section I.B.3 4VAC50-60-1240, Section II.B.1. 4VAC50-60-1240, Section II.B.2.
Contact Information:	Questions regarding the City's MS4 Program Plan and/or Annual Reports should be directed to:

Public Works Planner
Public Works Department
(540) 434-5928
thanhd@harrisonburgva.gov

Policies and Procedures: The Public Works Planner will make the City’s MS4 Program Plan and Annual Reports available on the City’s Stormwater website. Additionally, printed copies of the City’s MS4 Program Plan and Annual Reports will be available to the public upon request.

The Public Works Planner will be responsible for receiving and responding to staff and public comments on the City’s MS4 Program Plan and Annual Reports. Program Plans and Annual Reports will be archived by the Public Works Planner at the Public Works Department.

Schedule of Activities:

Activity	Schedule
Promote availability of MS4 Program Plan	Years 1 through 5
Consider public comments, inquiries, and participation	Years 1 through 5
Update MS4 Program Plan as needed	Years 1 through 5
Provide access to copies of the MS4 Annual Report to citizens upon request	Years 1 through 5

Other: None

3.2 BMP: Clean Stream Campaign

General Description: The City of Harrisonburg will develop and support a multi-year “Clean Stream” campaign consisting of multiple related campaigns and a website.

BMP Goals and Objectives: To increase local awareness of stream health issues and promote action and participation of citizens to improve water quality and public health.

Past & Ongoing Achievements: “Doodie-Free Harrisonburg” – handbills, posters, and T-shirts produced with assistance of JMU Communications faculty, launched April 14, 2007. Handbills and posters have been displayed at local pet stores, SPCA, veterinary offices, Community Activities Center, various municipal offices, and other local outlets with the help of residents and community volunteers.

Website: www.cleanstream.org launched August 13, 2007. Cleanstream.org is a collaborative effort between the City and its community. Its mission is to educate the public about water quality issues and serve as a clearinghouse for residents and businesses on water quality related issues and events.

A survey was conducted in Spring 2007 by faculty and students from James Madison University's Institute for Health and Environmental Communication. The survey primarily focused on pet waste management, but also collected information on public knowledge of stream health and nonpoint source pollution. A second survey is planned for in the future to gauge the success of the Clean Stream and Doodie-Free Harrisonburg campaigns.

Related Activities: Inclusive of MS4 Program Plan

Authority: 4VAC50-60-1240, Section I.B.3
4VAC50-60-1240, Section II.B.1.
4VAC50-60-1240, Section II.B.2.

Contact Information: Questions regarding the Clean Stream Campaign and www.cleanstream.org website can be directed to:

Public Works Planner
Public Works Department
(540) 434-5928
thanhd@harrisonburgva.gov

Policies and Procedures: The Public Works Planner and the Public Information Office take primary responsibility for developing new campaign materials with support from other City departments, other agencies, and community organizations. Campaign materials will be distributed at a variety of locations throughout the City (including municipal offices and events).

The Public Works Planner will track the number of campaign materials (i.e. brochures, handbills, and posters) printed and also track the type of events and groups of individuals to which the materials are distributed. This information will be reported in the MS4 Annual Reports.

Schedule Activities:

Activity	Schedule
Continue contenting cleanstream.org	Years 1 through 5
Continue distributing and promoting "Doodie-Free Harrisonburg" campaign at public events and to those inquiring	Years 1 through 5
Continue promoting new Lawn Care Campaign	Years 1 through 2
Develop and promote new additional campaigns, TBD	Years 3 through 5
Continue to solicit participation from the community to promote the Clean Stream campaign and contribute to the website	Years 1 through 5

Other: Funding – In Spring 2007, \$3,000 was allocated by City Council for the Doodie-Free campaign materials and \$1,500 allocated by Public Works Department for design of website template.

3.3 BMP: General Public Brochures & Recreational Guides

General Description: City of Harrisonburg staff will develop and distribute brochures and fact sheets at events and through public inquiry.

BMP Goals and Objectives: To inform the public of the City’s Stormwater Management Program and water quality issues. Whenever possible, a combination of brochures appropriate for various population groups should be created – for school aged children, and translated materials for non-English speaking populations.

Past & Ongoing Achievements: Existing brochures currently being distributed that were produced by the City Harrisonburg in previous years include: “Blacks Run: The Future is in Our Hands”, “Rain Gardens: A Living Science Exhibit and A Natural Way to Beautify and Clean Our Community Streams” (supported with funding from EPA’s Chesapeake Bay Program and VA DCR), “City of Harrisonburg, Stormwater Management Program (Spanish version available).

Materials produced by other agencies and currently distributed by the City include: “Water Connections” (VA DCR), “The Solution to Stormwater Pollution!” (US EPA), “A Virginian’s Year-Round Guide to Yard Care” (VA DCR).

“Harrisonburg Children’s Museum’s Stream Stroll” created by Andy Jackson, Harrisonburg Public School’s K-12 Science Coordinator, in partnership with the City of Harrisonburg and the Harrisonburg Children’s museum, is distributed at the Museum, and published in local children’s activity books (Woodland Montessori School’s “Kid’s Community Guide”).

Harrisonburg’s Community Activity Guide is published four times a year. Generally, each issue features information on Blacks Run and water quality related events and information. The Activity Guide is available online on the City’s webpage and hardcopies are mailed to all residents in Harrisonburg.

Related Activities: 3.2BMP: Clean Stream Campaign

Authority: 4VAC50-60-1240, Section I.B.3
4VAC50-60-1240, Section II.B.1.
4VAC50-60-1240, Section II.B.2.

Contact Information:

Questions regarding availability of brochures can be directed to:

Public Works Planner
Public Works Department
(540) 434-5928
thanhd@harrisonburgva.gov

Policies and Procedures:

The Public Works Planner and the Public Information Office take primary responsibility for developing new campaign materials with support from other City departments, other agencies, and community organizations. Materials will be distributed at a variety of locations throughout the City (including municipal offices and events).

The Public Works Planner will track the number of brochures, handbills, and posters printed and also track the type of events and groups of individuals to which the materials are distributed for Annual Reporting of the MS4 Program.

Schedule of Activities:

Activity	Schedule
Parks & Recreation Department to include stream health information into at least one issue of Community Activity Guide per year.	Years 1 through 5
Participate in development of new materials as opportunities become available.	Years 1 through 5
Continue to distribute and track number of each published material	Years 1 through 5

Other:

None

3.4 BMP: MS4 Stormwater Program Website

General Description:

The City of Harrisonburg will maintain a website with information specifically on the City's MS4 Program and related Stormwater Management programs and issues.

BMP Goals and Objectives:

To inform the public of the City's MS4 Permit Program, MS4 Program Plan, and MS4 Annual Reports and also to solicit public involvement, participation, and comments from the public. The MS4 Stormwater Management Program website's primary goals are to describe programs the City has established to meet the 6 minimum control measures.

Past & Ongoing Achievements:

The City of Harrisonburg's MS4 Stormwater Management Program Website was launched on March 1, 2004. The website, accessed at www.harrisonburgva.gov/stormwater has been a source for local events and

programs related to stormwater management and stream health.

In August 2007, the www.CleanStream.org website was launched and both the Stormwater Management Program website and CleanStream.org work together to educate residents.

Related Activities: Inclusive of MS4 Program Plan
3.2BMP: Clean Stream Campaign

Authority: 4VAC50-60-1240, Section I.B.3
4VAC50-60-1240, Section II.B.1.
4VAC50-60-1240, Section II.B.2.

Contact Information: Questions regarding the City's MS4 Permit Program and MS4 Stormwater Management Program website can be directed to:

Public Works Planner
Public Works Department
(540) 434-5928
thanhd@harrisonburgva.gov

Policies and Procedures: The Public Works Planner is responsible for maintaining the MS4 Stormwater Management Program website. The MS4 Stormwater Management Program website is reviewed at minimum quarterly by the Public Works Planner and updated as needed.

The MS4 Stormwater Management Program website is used in conjunction with the www.CleanStream.org website. The MS4 Stormwater Management website should also make links and reference appropriate departments and other stormwater management related programs.

Schedule of Activities:	of	<table><tr><th>Activity</th><th>Schedule</th></tr><tr><td>Review website at minimum quarterly, and make appropriate updates.</td><td>Years 1 through 5</td></tr></table>	Activity	Schedule	Review website at minimum quarterly, and make appropriate updates.	Years 1 through 5
	Activity	Schedule				
Review website at minimum quarterly, and make appropriate updates.	Years 1 through 5					

Other: None

3.5 BMP: Pollution “Hotline”

General Description: The City of Harrisonburg will maintain and advertise the Public Works Department phone number as an avenue for residents to report illicit discharge and pollution issues. This number is (540) 434-5928.

BMP Goals and Objectives: To make the public aware that there are avenues to report non-emergency pollution events.

Past & Ongoing The Public Works phone number has been advertised in a variety of media

Achievements: including CitySpan (local government access channel on TV), City’s web pages (www.CleanStream.org, www.harrisonburgva.gov/stormwater), on educational materials, and at public events.

Related Activities: 4.1BMP: Program to Detect and Eliminate Illicit Discharges
4.3BMP: Outfall Reconnaissance Program
4.4BMP: Spill Response and Prevention

Authority: 4.1BMP: Program to Detect and Eliminate Illicit Discharges
4VAC50-60-1240, Section I.B.3
4VAC50-60-1240, Section II.B.1.
4VAC50-60-1240, Section II.B.2.

Contact Information: Questions regarding the City’s Pollution “Hotline” can be directed to:

Public Works Planner
Public Works Department
(540) 434-5928
thanhd@harrisonburgva.gov

The Public Works Planner can be contacted when a citizen is unsure which department should be notified. In cases of Emergency, citizens should call 9-1-1 immediately.

Policies and Procedures: Please see 4.1BMP: Program to Detect and Eliminate Illicit Discharges and 4.4BMP: Spill Response and Prevention for more detailed information.

Schedule of Activities:	of	
	Activity	Schedule
	Receive pollution reports from City staff and citizens and resolve them.	Years 1 through 5
	Track pollution reports with IDDE Program, Section 4.1BMP: Program to Detect and Eliminate Illicit Discharges.	Years 1 through 5

Other: None.

3.6 BMP: Event Participation & Reaching Diverse Audiences

General Description: City of Harrisonburg staff will attend appropriate community events to educate the community about stormwater and water quality issues and pollution prevention methods.

BMP Goals and Objectives: To reach many different sectors of the community in order to provide information and receive feedback on the City’s MS4 Stormwater Management program and water quality improvement efforts.

Past & Ongoing Achievements: City staff have participated in a number of educational opportunities by either talking directly to citizens in classrooms and organizational meetings or setting up educational booths and distributing materials at events. Some past events include: Blacks Run/ Downtown CleanUp Day, Household Hazardous Waste Collection Day, International Festival, and National Night Out.

The City has had success partnering local schools, special interest groups, and with local industries like Cargill to provide volunteer opportunities. City staff also visits retirement communities and lead residents on field trips and conversations about stormwater and stream health.

Related Activities: 3.3BMP: General Public Brochures & Recreational Guides
3.2BMP: Clean Stream Campaign
3.7BMP: Forming Partnerships
3.8BMP: Educational Programs – K-12 and University Partnerships
3.9BMP: Blacks Run/ Downtown CleanUp Day

Authority: 4VAC50-60-1240, Section I.B.3
4VAC50-60-1240, Section II.B.1.
4VAC50-60-1240, Section II.B.2.

Roles and Responsibilities: City staff should periodically review community calendars, i.e. posted by the Tourism Department, for additional events that the City can participate in. City staff should tailor the event materials or conversations to the specific audience.

Contact Information: Questions regarding the City’s participation at community events can be directed to:

Public Works Planner
Public Works Department
(540) 434-5928
thanhd@harrisonburgva.gov

OR

Stream Health Coordinator
Parks & Recreation Department
(540) 437-1258
justin.showalter@harrisonburgva.gov

Recordkeeping and Reporting: The Public Works Planner and Stream Health Coordinator are primarily responsible for recording the name of the event, date of the event, how many citizens were reached, and other appropriate event details.

Schedule of Activities:	Activity	Schedule
	Continue partnering with citizens,	Years 1 through 5

local organizations and businesses to provide volunteer opportunities	
Continue organizing and/or attending community events to educate citizens	Years 1 through 5
Create or participate in a program to better reach minority and low income populations	Year 3

Other: None

3.7 BMP: Forming Partnerships

General Description: The City of Harrisonburg maintains a high priority toward building working partnerships with regional government agencies and local civic organizations.

BMP Goals and Objectives: To share information and financial resources to complete shared objectives.

Past & Ongoing Achievements: The City maintains active relationships with many agencies in respect to stormwater concerns, not limited to the following:

- Bridgewater College
- Canaan Valley Institute,
- Eastern Mennonite University,
- Friends of Blacks Run Greenway,
- Harrisonburg City Public Schools,
- James Madison University,
- Shenandoah Pure Water Forum,
- Shenandoah Resource Conservation & Development Council
- Shenandoah Valley Soil & Water Conservation District,
- Valley Conservation Council,
- Virginia Department of Conservation & Recreation,
- Virginia Department of Environmental Quality,
- Virginia Department of Forestry,
- Virginia Department of Game and Inland Fisheries.

Related Activities: 3.2BMP: Clean Stream Campaign
3.3BMP: General Public Brochures & Recreational Guides
3.6BMP: Event Participation & Reaching Diverse Audiences
3.8BMP: Educational Programs – K-12 and University Partnerships
3.12BMP: Adopt-A-Street/ Adopt-A-Stream/ Street and Stream Clean Up Activities
3.13BMP: Pet Waste Management
3.14BMP: Streamside Plantings & Other Community Projects
4.7BMP: Biological Monitoring

Authority: 4VAC50-60-1240, Section I.B.3

4VAC50-60-1240, Section II.B.1.
4VAC50-60-1240, Section II.B.2.

Contact Information: Questions regarding Harrisonburg's partnerships related to stormwater can be directed to:

Public Works Planner
Public Works Department
(540) 434-5928
thanhd@harrisonburgva.gov

Policies and Procedures: City departments collectively form regular partnerships with other governmental agencies and civic organizations to address stormwater management and nonpoint source pollution issues. The Public Works Planner and the Stream Health Coordinator are primary participants in stormwater-related partnerships. Other City Staff like the Parks & Recreation Director, Public Works Director, Solid Waste Operations Superintendent, the Senior Planner from Department of Planning & Community Development, and the Public Information Officer might also form stormwater-related partnerships.

The City will report a list of new and ongoing partnerships made and through other BMPs in the MS4 Annual Reports. Specific BMPs will detail what objectives, goals, and accomplishments have been made.

Schedule of Activities: See other Related Activities

Other: None

3.8 BMP: Educational Programs – K-12 and University Partnerships

General Description: Harrisonburg City staff will lead and participate in educational activities geared towards students K-12 within the local public school systems, private schools, and other local organizations. City staff and departments will also continue partnerships with local colleges to address stormwater and water quality issues through presentations, partnerships in projects and working groups, and providing student-volunteer opportunities.

BMP Goals and Objectives: To provide stormwater and environmental education to young citizens and also to engage their interest in the health of our community and how they can help. Also to utilize resources available at local public schools, universities and colleges.

Past & Ongoing Achievements: The City of Harrisonburg has continued a strong partnership with the local school systems and community organizations. Each year City staff organize Blacks Run/Downtown CleanUp Day, take students and children on field

trips to nearby streams, work with students and children on projects such as raingardens and stream plantings, and lead students in watershed activities organized by school teachers.

The City of Harrisonburg has continued strong partnerships with faculty and students from local colleges including James Madison University, Eastern Mennonite University, and Bridgewater College. A number of successful projects have been developed and implemented with help from college students. City staff have also been invited to speak to college classes and organizations to give overviews of local water quality issues and to engage students to help. Several City Departments have also provided internship positions to college students, where students have the opportunity to work on stormwater-related projects.

**Related
Activities:**

3.2BMP: Clean Stream Campaign
3.3BMP: General Public Brochures & Recreational Guides
3.6BMP: Event Participation & Reaching Diverse Audiences
3.7BMP: Forming Partnerships
3.9BMP: Blacks Run/ Downtown CleanUp Day
3.13BMP: Pet Waste Management
4.1BMP: Program to Detect and Eliminate Illicit Discharges
4.2BMP: Storm Drain System Map
4.7BMP: Biological Monitoring

Authority:

4VAC50-60-1240, Section I.B.3
4VAC50-60-1240, Section II.B.1.
4VAC50-60-1240, Section II.B.2.

**Contact
Information:**

Questions regarding the City's participation in K-12 educational activities can be directed to:

Public Works Planner
Public Works Department
(540) 434-5928
thanhd@harrisonburgva.gov

Interested parents and citizens may also contact the Harrisonburg City Public Schools' K-12 Science Coordinator at:

K-12 Science Coordinator
Harrisonburg City Public Schools
(540) 434-9916

**Policies
Procedures:**

and Procedures and policies vary per educational activity.

Many City staff play a role in environmental education within the K-12 school system and local colleges and universities. In regards to stormwater education, the Public Works Planner and Stream Health Coordinator are primarily responsible. The City accepts many opportunities to partner with

school officials and other supporting agencies and organizations (e.g. DEQ, DCR, Eagle Scouts, Girl Scouts) to create activities for students and children.

Each staff member keeps records of stormwater educational activities they participate in for reporting to the Public Works Planner for the MS4 Annual Report. There are many other water quality related educational activities conducted within classrooms that are organized and recorded by the Schools. For examples, Virginia Standards of Learning (SOL) programs require watershed experiences and water related activities in nearly all grades, especially grades 4, 6, and 7.

Schedule of Activities:

Activity	Schedule
Identify partnership opportunities between the City, local schools, and other organizations for K-12 students	Years 1 through 5
Provide internship positions for students when funds are available	Years 1 through 5
Identify partnership opportunities between college, universities, and the City	Years 1 through 5

Other: None

3.9 BMP: Blacks Run/ Downtown CleanUp Day

General Description: The City of Harrisonburg will lead efforts to organize the Annual Blacks Run/ Downtown CleanUp Day with participation from other local agencies and citizen volunteers. Clean Up Day consists of stream and street cleaning, streambank planting, and watershed education activities.

BMP Goals and Objectives: To provide a community-wide activity that promotes stream health education through a variety of means.

Past & Ongoing Achievements: April 2007 marked the 10th Annual Blacks Run/ Downtown CleanUp Day. More information on Clean Up Day can be found on the www.CleanStream.org website.

Related Activities:

- 3.2BMP: Clean Stream Campaign
- 3.6BMP: Event Participation & Reaching Diverse Audiences
- 3.7BMP: Forming Partnerships
- 3.8BMP: Educational Programs – K-12 and University Partnerships
- 3.12BMP: Adopt-A-Street/ Adopt-A-Stream/ Street and Stream Clean Up Activities
- 3.14BMP: Streamside Plantings & Other Community Projects
- 4.1BMP: Program to Detect and Eliminate Illicit Discharges

7.1.6Vegetation in City Parks & Properties

Authority: 4VAC50-60-1240, Section I.B.3
4VAC50-60-1240, Section II.B.1.
4VAC50-60-1240, Section II.B.2.

Contact Information: Questions regarding Blacks Run/ Downtown CleanUp Day can be directed to:

Stream Health Coordinator
Parks & Recreation Department
(540) 437-1258
justin.showalter@harrisonburgva.gov

Policies and Procedures: The Stream Health Coordinator is the primarily contact for Blacks Run/ Downtown CleanUp Day. The Stream Health Coordinator receives support from a variety of city staff and community members including individuals from the City Manager's Office, Public Works Department, Parks & Recreation Department, Harrisonburg Downtown Renaissance, James Madison University, Shenandoah Soil & Water Conservation District, Department of Environmental Quality –Valley Regional Office, etc.

Planning for the annual April event generally begins among City staff in November of the previous year. A committee of local agencies and civic organizations is formed and begins meeting in January to organize the event. Fundraising and grant applications are completed by committee members.

The Stream Health Coordinator is responsible for keeping records of volunteer hours spent organizing and participating in Clean Up Day, number of plants planted, weight of trash picked up, cost of activities, etc.

Schedule Activities:

of	Activity	Schedule
	Organize and implement Clean Up Day activities once a year in April	Years 1 through 5
	Provide project and/or internship opportunities to high school and college students as needed, as appropriate	Years 1 through 5
	Form partnerships with local agencies and civic organizations (Clean Up Day committee)	Years 1 through 5

Other: Funding - During the 2007 event, \$4,000 of cash contributions was donated to the event by local businesses, and there was a large amount of in-kind, food and beverage, and gift certificate contributions made by local businesses and organizations. The City contributed in-kind with staff time to organize the event.

3.10BMP: Household Hazardous Waste Collection & Used Oil Recycling Program

General Description:	The City of Harrisonburg makes available Household Hazardous Waste Collection (HHW) Days for City residents. The City of Harrisonburg will provide a used oil recycling program to residents.
BMP Goals and Objectives:	To eliminate the improper disposal of household hazardous waste in landfills and into local waterways by providing collection services for City residents and year-round used oil recycling program.
Past & Ongoing Achievements:	<p>September 2007 marked the 11th year of the joint Household Hazardous Waste Collection Day for City of Harrisonburg and Rockingham County residents. A large range of materials have been, and will be continued, to be collected including NiCad batteries, solvents, acids, pesticides, propane cylinders, oil based paints, aerosols, fluorescent lamps, etc.</p> <p>In 2008, the City of Harrisonburg established more frequent HHW collection days on the third Saturday of each month between April and October. The City intends to continue this service in subsequent years.</p> <p>The City of Harrisonburg collects about 3,000 gallons of used oil each year from residents that participate in the City's used oil recycling program. This oil is filtered and then used to heat the recycling facility and a nearby shop building.</p>
Related Activities:	3.3BMP: General Public Brochures & Recreational Guides
Authority:	4VAC50-60-1240, Section I.B. 4VAC50-60-1240, Section II.B.1. 4VAC50-60-1240, Section II.B.2. 4VAC50-60-1240, Section II.B.3.
Contact Information:	<p>Questions regarding Household Hazardous Waste and the residential used oil collection program can be directed to:</p> <p>Solid Waste Operations Superintendent Public Works Department (540) 434-5928 patelh@harrisonburgva.gov</p>
Policies and Procedures:	The City of Harrisonburg's Public Works Department provides HHW collection on the third Saturday of each month between April and October of each year. Citizens may bring motor oil, florescent light tubes, fertilizers, herbicides, pesticides, antifreeze, and oil based paints for collection and proper disposal. Information on the collection day is also posted on the City's Public Works Department's website, advertised in local newspapers, on City Span, and shared with citizen callers throughout the year.

The used oil recycling program is geared towards Do-It-Yourself-ers who choose to change their automobile oil at home. Residents who have used oil are instructed to put the used oil into a container with a screw top lid and to place the container out with their recycling bin for pick up. The used oil is then used by the City to heat City buildings.

The Solid Waste Operations Superintendent is responsible for keeping records of items collected for reporting to the Virginia Department of Environmental Quality and sharing this information for the MS4 Program Annual Report

**Schedule
Activities:**

of

Activity	Schedule
Hold household hazardous waste collection event(s)	Years 1 through 5
Continue to collect use oil from residents	Years 1 through 5

Other:

None.

3.11 BMP: Yard Debris Collection

**General
Description:**

The City of Harrisonburg collects grass, brush, hedge trimmings, leaves and other yard debris throughout the year. The City also provides for large leaf collection services during the Fall.

**BMP Goals and
Objectives:**

To provide a leaf collection service to the community and to prevent flooding caused by leaves and other brush clogging up stormdrains. Large amounts of brush and organic material may also disrupt the ecosystem by smothering the vegetation fish use for nutrients and use up oxygen during the decay process. By providing these services to the community, the City can help keep excess nutrients out of our local streams.

**Past & Ongoing
Achievements:
Related
Activities:**

Ongoing.

None

Authority:

4VAC50-60-1240, Section I.B.
4VAC50-60-1240, Section II.B.1.
4VAC50-60-1240, Section II.B.2.

**Contact
Information:**

Questions regarding yard debris pick up throughout the year can be directed to:

Solid Waste Operations Superintendent
Public Works Department
(540) 434-5928

patelh@harrisonburgva.orgv

Questions regarding leaf collection during the Fall can be directed to:

Street Superintendent
Public Works Department
(540) 434-5928
kennyk@harrisonburgva.gov

Policies and Procedures: The City of Harrisonburg's Solid Waste Division of the Public Works Department collects grass, brush, hedge trimmings, leaves and other yard debris throughout the year; generally once a week on Wednesdays.

The City's Street Division of the Public Works Department also provides for large leaf collection during the Fall. The Street Division uses large leaf vacuum trucks to collect large quantities of leaves. These leaves are used for the City's landscaping needs. Leaves are also available for at a cost to residents.

Advertisements for these programs can be found in the local newspaper during appropriate times of the year, on the City Span (local government access channel), and on the City's Public Works Department website, www.harrisonburgva.gov/pubworks. Citizens may also call the Public Works Department for more information.

Schedule of Activities:

Activity	Schedule
Continue to provide weekly yard debris collection	Years 1 through 5
Continue to provide leaf collection for large quantities of leaves in the Fall	Years 1 through 5
Continue to advertise these programs through appropriate media	Years 1 through 5

Other: None

3.12 BMP: Adopt-A-Street/ Adopt-A-Stream/ Street and Stream Clean Up Activities

General Description: The City of Harrisonburg will continue to advertise opportunities and provide supplies for citizen groups who wish to hold cleanup activities in area streets and streams. City staff will lead some cleanup activities; other activities may be lead by volunteers with assistance from City staff.

BMP Goals and Objectives: To preserve Harrisonburg's natural resources and maintain quality streets, roads, and streams. To promote awareness of litter control needs and

provide hands on volunteer opportunities for residents to participate in the beautification of Harrisonburg. Education on litter control and stormwater management practices will be incorporated when possible.

Past & Ongoing Achievements: The City of Harrisonburg has organized the Adopt-A-Street program based on the Virginia Department of Transportation's program for years has had considerable support from citizens each year. Stream cleanup activities are held throughout the year. Additionally, the Blacks Run/ Downtown CleanUp Day is the City of Harrisonburg's largest clean up event for both the streets and streams.

Related Activities: 3.9BMP: Blacks Run/ Downtown CleanUp Day
3.6BMP: Event Participation & Reaching Diverse Audiences
3.7BMP: Forming Partnerships
3.8BMP: Educational Programs – K-12 and University Partnerships

Authority: 4VAC50-60-1240, Section I.B.
4VAC50-60-1240, Section II.B.1.
4VAC50-60-1240, Section II.B.2.

Contact Information: Questions regarding Adopt-A-Street should be directed to:

Solid Waste Operations Superintendent
Public Works Department
(540) 434-5928
patelh@harrisonburgva.gov

Questions regarding stream cleanup activities should be directed to:

Stream Health Coordinator
Parks & Recreation Department
(540) 433-9168
justin.showalter@harrisonburgva.gov

Policies and Procedures: The Solid Waste Operations Superintendent is responsible for overseeing the City's Adopt-A-Street program. The Stream Health Coordinator is responsible for overseeing stream cleanup activities. Generally, for Adopt-A-Street and stream clean ups volunteer groups are provided a street and materials including gloves, trash bags, and orange vests, to do clean up. The Solid Waste Operations Superintendent and Stream Health Coordinator are responsible for collecting information on how much (generally in tons) of waste was collected for reporting to DEQ and for the MS4 Annual Report to DCR.

Schedule of Activities:	Activity	Schedule
	Advertise and provide supplies for Adopt-A-Street	Years 1 through 5
	Advertise and provide supplies for cleanup activities	Years 1 through 5

Other: None

3.13BMP: Pet Waste Management

General Description: The City of Harrisonburg will continue to promote, encourage, and educate citizens to properly manage their pet's waste.

BMP Goals and Objectives: To make Harrisonburg residents aware that pet waste left on the ground can have negative effects on the environment, our local streams, and public health. To educate residents on proper disposal methods for pet waste.

Past & Ongoing Achievements: In 2006, the City of Harrisonburg was awarded funds through DCR's WQIF Grant to purchase and install 10 additional pet waste stations and 15 pet waste disposal signs throughout 7 City parks.

The City has also initiated a Clean Stream campaign, of which the first phase is "Doodie-Free Harrisonburg." See Section 3.2BMP: Clean Stream Campaign for more information.

Related Activities: 3.2BMP: Clean Stream Campaign
3.6BMP: Event Participation & Reaching Diverse Audiences

Authority: City Code Section, 15-2-4 – finable offense for not removing pet waste.
4VAC50-60-1240, Section I.B.3
4VAC50-60-1240, Section II.B.1.
4VAC50-60-1240, Section II.B.2.

Contact Information: Questions regarding the "Doodie-Free Harrisonburg" component of the Pet Waste Management program can be directed to the:

Public Works Planner
Public Works Department
(540) 434-5928
thanhd@harrisonburgva.gov

Questions regarding pet waste management within the City parks can be directed to the:

Parks Superintendent
Parks & Recreation Department
(540) 433-9168
tedp@harrisonburgva.gov

Policies and Procedures: The pet waste stations are checked and serviced daily by Parks & Recreation staff.

City staff continually identifies opportunities to provide information to

citizen groups and at community events. Staff also receives communication from citizens and provides appropriate assistance.

For additional information regarding the pet waste management campaign “Doodie-Free Harrisonburg” please see Section 3.2BMP: Clean Stream Campaign for more information.

Schedule of Activities:	Activity	Schedule
	Continue servicing pet waste stations in City parks	Years 1 through 5
	Continue “Doodie-Free Harrisonburg” campaign	Years 1 through 5

Other: In 2007, the City Council allocated \$3,000 to fund the Doodie-Free Harrisonburg campaign.

It is estimated that 8 ounces of pet waste are removed from each station daily. It is estimated that an additional 5 ounces of pet waste is deposited into regular trash receptacles in City parks daily. It is estimated that each year with 15 total stations about 2, 730 pounds of pet waste are removed from parks annually.

3.14BMP: Streamside Plantings & Other Community Projects

General Description: The City of Harrisonburg will continue to support and lead efforts to increase vegetative cover and buffers alongside stream banks with the support of citizen volunteers.

BMP Goals and Objectives: To create and maintain vegetative buffers along streambanks to help hold soil and prevent erosion, to shade the stream for healthy habitat, and to help filter pollutants found in stormwater runoff.

Past & Ongoing Achievements: The City has had long history of supporting stream health activities. These activities have included partnerships with Eagle Scouts, Girl Scouts, Department of Game & Inland Fisheries and many individuals and community organizations. Past examples include streamside plantings, streambank restorations, construction of raingardens at City Parks and Public Schools.

Related Activities: 3.2BMP: Clean Stream Campaign
3.6BMP: Event Participation & Reaching Diverse Audiences
3.7BMP: Forming Partnerships
3.8BMP: Educational Programs – K-12 and University Partnerships
3.9BMP: Blacks Run/ Downtown CleanUp Day

Authority: 4VAC50-60-1240, Section I.B.3
4VAC50-60-1240, Section II.B.1.
4VAC50-60-1240, Section II.B.2.

**Contact
Information:**

Questions regarding streamside planting projects can be directed to:

Stream Health Coordinator
Parks & Recreation Department
(540) 433-9168
justin.showalter@harrisonburgva.gov

**Policies
Procedures:**

and Streamside planting efforts are primarily led by the Stream Health Coordinator with assistance from other City staff. Citizen volunteers and local civic organizations and schools often partner with the Stream Health Coordinator to create and complete projects. Policies and procedures vary with each project.

Both the Stream Health Coordinator and the Public Works Planner search for and apply for grant opportunities throughout the year to help fund projects.

City staff involved in these activities and projects are responsible for keeping records of the activities (date, event type, number of volunteers, and hours) for reporting to the Public Works Planner for the MS4 Annual Report.

**Schedule
Activities:**

of

Activity	Schedule
Continue to form partnerships and sponsor streamside planting and other related community projects	Years 1 through 5

Other:

Funding – Funding for streamside planting projects is limited and have come from a variety of sources. Donations for trees, saplings, shrubs, etc have been provided by a variety of local businesses, State agencies (i.e. Department of Forestry, Soil & Water Conservation District), and Harrisonburg High School’s Ecology Club. Other funds have come from grant opportunities, such as WQIF, as well as monetary and in-kind contributions from City Departments and other State agency staff.

4 MCM 3: Illicit Discharge Detection & Elimination

Illicit discharges are generally any discharge into a storm drain system that is not composed entirely of stormwater. Exceptions include water from fire fighting activities, residential car washing and discharges from facilities already under a VPDES permit such as one for industrial facilities. Illicit discharges are a problem because, unlike wastewater, which flows into a wastewater treatment plant, stormwater flow directly into our streams and rivers without treatment.

The City of Harrisonburg's illicit discharge program is combined with other BMPs in the MS4 Program Plan to be both reactive and proactive. The program is reactive in addressing spills and other illicit discharges into the storm drain system that are found. The program is proactive in preventing and eliminating illicit discharges through education, training and enforcement.

4.1 *BMP: Program to Detect and Eliminate Illicit Discharges*

General Description: To implement and enforce a program to detect and eliminate illicit discharges into MS4.

BMP Goals and Objectives: To eliminate non-stormwater discharges, not covered already by a VPDES permit, from entering the City's storm sewer system so that our local waterways are protected.

Past & Ongoing Achievements: The City has an ordinance, and several supporting ordinances, that prohibit non-stormwater discharges from entering the storm sewer system and Blacks Run. These codes have enforcement measures and penalties associated with them. These codes can be found in Sections 6-2-5 and Sections 6-1-12, and 7-3-14 of the City of Harrisonburg code.

Related Activities:

- 3.2BMP: Clean Stream Campaign
- 3.4BMP: MS4 Stormwater Program Website
- 3.5BMP: Pollution "Hotline"
- 3.6BMP: Event Participation & Reaching Diverse Audiences
- 3.9BMP: Blacks Run/ Downtown CleanUp Day
- 4.2BMP: Storm Drain System Map
- 4.3BMP: Outfall Reconnaissance Program
- 4.4BMP: Spill Response and Prevention
- 4.5BMP: Sanitary Sewer System Maintenance, Overflow, and Spill Prevention

Authority:

- City Code 6-2-5 - Unlawful to throw, place, deposit or allow to accumulate on or in the streets, sidewalks, Blacks Run, streams, stream beds, storm drainage systems (code lists items).
- City Code 6-1-12 - Unlawful to empty or cause to be emptied into the street, street gutters, or street drains, wastewater from premises.
- City Code 7-3-14 – Unlawful to discharge polluted waters into natural

outlet
4VAC50-60-1240, Section I.B.
4VAC50-60-1240, Section II.B.3.

**Contact
Information:**

Questions regarding the City's Illicit Discharge and Detection Program and reports of illicit discharges and connections should be directed to:

Public Works Planner
Public Works Department
(540) 434-5928
thanhd@harrisonburgva.gov

OR

Fire Marshall
Fire Department
(540) 432-7703
arthurm@harrisonburgva.gov

**Policies
Procedures:**

and The City depends on numerous individuals and crews working in the field to identify illicit discharges and connections.

The following individuals are City staff who spend the greatest amount of time in the streams and/or storm drains. *GIS Coordinator* – works with interns several days a week throughout the year mapping storm drains, as well as inspecting areas of the City and outfalls that have historically had problems. *Public Works Planner* – spends several days out of the month visiting areas of the City that have historically had problems, spot checking other areas of the City, and following up on pollution reports. *Stream Health Coordinator* – is streamside most days during the week throughout the year. *Flush Truck Crew* (storm sewer system maintenance) – This crew follows a maintenance schedule to check and maintain components of the storm sewer system.

Other individuals who the City depends on include field crews from all departments and citizens. All City staff and citizens are encouraged to report illicit discharge issues to the Public Works Planner or the Fire Marshall, depending on nature and severity of the problem. Once reported, either the Public Works Department or Fire Department are responsible for coordinating clean up, helping to remediate the problem, and enforcing ordinances and laws when necessary. Assistance is received from relevant departments including, Public Utilities (Water/Sewer), Planning & Community Development (Building Inspections, Engineering) as well as with State agencies (Department for Environmental Quality).

Both the Public Works and Public Utilities Department have procedures and equipment for identifying the source of illicit discharges and connections.

A typical pollution report or call might report a leaking automobile,

washing operations at an automobile shop entering storm drains, paint in a creek, a restaurant dumping wastewater into a storm drain, or organic debris in a drainage system or waterway.

Generally, an investigation team promptly responds to a call and, in most cases, visits the problem site. If a responsible party can be identified, the team informs the party of the problem, offers alternatives for future disposal, and instructs the party to resolve the problem. If the issue is not resolved by the responsible party (or if the party cannot be identified), the proper authority takes action to remediate the situation and prevent future violations.

Pollution reports and problems identified by the Public Works Planner are tracked using the City's GIS database. Information recorded includes: Name of Reporter, Date and Time Reported, Date and Time incident occurred, location and address of incident, Volume of discharge, Appearance and Odor of discharge, Responsible Party, and Resolution. The Fire Department also keeps records of events that they respond to.

**Schedule
Activities:**

of

Activity	Schedule
Track Illicit Discharges identified and submit requested information to DCR which each Annual Report	Years 1 through 5
Continue to advertise phone number to which citizens may report an illicit discharge	Years 1 through 5
Continue to resolve illicit discharges and connections reported	Years 1 through 5

Other:

None

4.2 BMP: Storm Drain System Map

**General
Description:**

The City of Harrisonburg will have the City's MS4 system mapped by Geographic Information Systems (GIS).

**BMP Goals and
Objectives:**

To have storm drain inlets and outfalls identified for quick response to a spill or pollution report. City staff may use these maps to help identify the source of pollution or where clean up needs to occur if the contaminate has entered the storm drain.

**Past & Ongoing
Achievements:**

The City of Harrisonburg completed mapping using GPS of Blacks Run and all known outfalls entering Blacks Run in 2005. City staff has also mapped all public storm drains and are currently working on mapping private storm structures. This system map will also assist with reconnaissance and spill response.

Related Activities:	4.1BMP: Program to Detect and Eliminate Illicit Discharges 4.3BMP: Outfall Reconnaissance Program								
Authority:	4VAC50-60-1240, Section I.B. 4VAC50-60-1240, Section II.B.3.								
Contact Information:	Questions regarding the City's Storm Drain System Map should be directed to: GIS Coordinator Planning & Community Development Department (540) 432-7700 samh@harrisonburgva.gov OR Public Works Planner Public Works Department (540) 434-5928 thanhd@harrisonburgva.gov								
Policies and Procedures:	The GIS Coordinator is primarily responsible for overseeing the mapping of the City's storm drain system. Support for mapping is received from the Public Works Planner and interns.								
Schedule of Activities:	<table border="1"> <thead> <tr> <th>Activity</th><th>Schedule</th></tr> </thead> <tbody> <tr> <td>Continue mapping City Storm Drain System</td><td>Years 1 through 5</td></tr> <tr> <td>Update City's Storm Drain System Map</td><td>Years 1 through 5</td></tr> <tr> <td>See related activities for tracking</td><td>NA</td></tr> </tbody> </table>	Activity	Schedule	Continue mapping City Storm Drain System	Years 1 through 5	Update City's Storm Drain System Map	Years 1 through 5	See related activities for tracking	NA
Activity	Schedule								
Continue mapping City Storm Drain System	Years 1 through 5								
Update City's Storm Drain System Map	Years 1 through 5								
See related activities for tracking	NA								
Other:	None								

4.3 BMP: Outfall Reconnaissance Program

General Description:	The City of Harrisonburg will develop and implement outfall reconnaissance program to identify potential sources of pollutants identified in the TMDL's Waste Load Allocations from anthropogenic activities.
BMP Goals and Objectives:	To meet requirements of 4VAC50-60-1240, Section I.B.5 to identify pollution sources. See also Policies & Procedures.
Past & Ongoing Achievements:	The City of Harrisonburg completed mapping using GPS of Blacks Run and all known outfalls entering Blacks Run in 2005. City staff has also mapped all public storm drains and are currently working on mapping private storm structures. This system map will be used with outfall reconnaissance and spill response.

Related Activities: 4.1BMP: Program to Detect and Eliminate Illicit Discharges
4.2BMP: Storm Drain System Map

Authority: 4VAC50-60-1240, Section I.B.5
4VAC50-60-1240, Section II.B.3.

Contact Information: Questions regarding the Outfall Reconnaissance Program should be directed to:

GIS Coordinator
Planning & Community Development Department
(540) 432-7700
samh@harrisonburgva.gov

OR

Public Works Planner
Public Works Department
(540) 434-5928
thanhd@harrisonburgva.gov

Policies and Procedures: The GIS Coordinator is primarily responsible for overseeing the program for outfall reconnaissance. Support for mapping is received from the Public Works Planner and interns.

Per 4VAC50-60-1240, Section I.B.5, the City will perform reconnaissance on a minimum of 250 outfalls for each WLA assigned at least once during the five-year permit period and shall perform reconnaissance on a minimum of 35 outfalls per year.

Recommended guidance from DCR can be found in the publication entitled “Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments.”

Schedule of Activities:

Activity	Schedule
Begin outfall reconnaissance program	Year 1
Continue outfall reconnaissance program	Years 2 through 5

Other: None

4.4 BMP: Spill Response and Prevention

General Description: The purpose of spill response and prevention programs is to reduce the risk of spills and improve response and cleanup when they occur. This program requires the coordination among fire, police, public works, and other

relevant departments. Each City Department shall examine the storage of materials at its facilities and take proper measures to prevent spills.

BMP Goals and Objectives: To prevent or minimize to the maximum extent practicable, the discharge of hazardous substances or oil into the storm sewer system.

Past & Ongoing Achievements: Continuous, See Policies & Procedures.

Related Activities: 4.1BMP: Program to Detect and Eliminate Illicit Discharges
7.1BMP: Public Facilities Operation & Maintenance

Authority: 4VAC50-60-1240, Section I.B.
4VAC50-60-1240, Section II.B.3.

Contact Information: In cases of emergency, reports of illicit discharges or large spills should be reported into the Emergency Communications Center immediately by calling 9-1-1.

Non-emergency questions regarding the City's Spill Response & Prevention and HAZMAT can be directed to:

Fire Marshall
Fire Department
(540) 432-7703
arthurm@harrisonburgva.gov

Non-emergency questions regarding each City Department's efforts to manage an effective spill prevention and response program for municipal operations can be directed either to individual departments or to:

Public Works Planner
Public Works Department
(540) 434-5928
thanhd@harrisonburgva.gov

Non-emergency questions and reports regarding industrial facilities should be directed to the PREP Coordinator with the Department of Environmental Quality's Valley Regional Office at (540) 574-7800.

Policies and Procedures: Each department is responsible for implementing a program for proper materials storage, spill prevention, and spill response for operations at their facilities. Employee training on reporting procedures, spill containment, storage disposal activities is completed. Such programs may be integrated into the department's regular safety meetings and trainings. Should a spill that enters a waterway or large spill occur, the Public Safety Departments including Fire and Police, as well as the Virginia Department of Environmental Quality, should be notified immediately.

When a 9-1-1 call involving a spill is reported to the Emergency

Communications Center, the Police and Fire Departments are dispatched. If the spill is small one fire engine is dispatched. If the spill is large (over 25 gallons) 3 fire engines, a ladder truck, and the HAZMAT team are immediately dispatched. The City's HAZMAT unit is located at Fire Station 1, on Maryland Avenue, and is made up of a team of 50-60 trained staff from the Fire Department. Each of these individuals is trained to OSHA 1910.120 requirements. Depending on the situation, other departments such as Public Works may also become involved to help remediate.

The City reports spills to the Department of Environmental Quality as required by State regulations. Generally, spills are reported if they enter a waterway or if it is a large spill. The City also has mechanisms to recover costs for the cleanup of any hazardous materials released into the environment. Additionally, remediation generally takes place in coordination with DEQ's PREP Coordinator and is overseen by the Fire Department.

**Schedule
Activities:**

Activity	Schedule
Continue to implement City Spill Response & Prevention Program in coordination with HAZMAT	Years 1 through 5
Continue to implement department Spill Response & Prevention programs	Years 1 through 5

Other: None

4.5 BMP: Sanitary Sewer System Maintenance, Overflow, and Spill Prevention

General Description: The City of Harrisonburg has an aggressive sanitary sewer rehabilitation program, which strives to reduce sewer backups, reduce infiltration and inflow (I&I) and extend the useful life of the sanitary sewer system. This program is generally known as the Inflow & Infiltration Abatement Program (Blacks Run Interceptor Project).

BMP Goals and Objectives: To eliminate I&I in the sanitary sewer system, which frees up capacity of the sewer system for sewage, and to reduce the potential for sanitary sewer overflows which could pollute waterways.

Past & Ongoing Achievements: Continuous, see Policies and Procedures.

Related Activities: 4.1BMP: Program to Detect and Eliminate Illicit Discharges
4.3BMP: Outfall Reconnaissance Program

Authority: 4VAC50-60-1240, Section I.B.
4VAC50-60-1240, Section II.B.3.

Contact Information: Questions regarding the City’s Inflow & Infiltration Abatement Program and related sanitary sewer system questions can be directed to:

Public Utilities Engineer
Department of Public Utilities
(540) 432-9959
davegray@harrisonburgva.gov

Policies and Procedures: The City reduces Inflow & Infiltration through a four phase process. Phase 1 involves data collection, including closed circuit televideo of sewer mains, smoke testing, flow monitoring, dye testing and manhole inspections. Phase 2 involves the design of a rehabilitation plan based on data gathered under Phase 1 investigations. Typical rehabilitation may include point repairs, complete replacement, slip lining, pipe bursting, and manhole grouting. Phase 3 is the execution of the Phase 2 rehabilitation plan. Phase 4 involves the investigation of private defects once the public defects have been remediated. Owners identified to have private defects are issued a notification for correction followed by enforcement under the City Code of Ordinances.

Schedule of Activities:	Activity	Schedule
	Continue to implement Inflow & Infiltration Abatement Program.	Years 1 through 5

Other: None

4.6 BMP: Septic Systems

Per City Code Sec 7-3-3, the following buildings are required to connect to a city public sewer main: 1) buildings within two hundred (200) feet of the public main, the pipe can be installed without crossing private property of another person, and 3) the owner has been notified in writing by the City that such connections shall be made.

There are few buildings in Harrisonburg known to still be on septic. These buildings are generally located in areas that were previously annexed into the City. The City’s Public Utilities Department is actively working to build sewer mains and extending service to these areas to get these buildings connected. All new developments are required to provide sewer service to all lots and often reserve easements for future extensions to adjacent properties.

Additionally, the Shenandoah Valley Soil & Water Conservation District has a cost share program for residents who wish to switch from septic to the City sewer. City staff does inform residents that this program is available. Interested citizens should call the Shenandoah Valley SWCD at (540) 433-2853.

4.7 BMP: Biological Monitoring

Monitoring is not required for this permit. However, the City of Harrisonburg's Stream Health Coordinator coordinates stream monitoring projects with local Universities when the opportunity arises and funding is available. The intent is to collect data over a period of time to measure improvements in stream health as well as provide an educational opportunity for citizens.

The Virginia Department of Environmental Quality monitors watershed for fecal coliform. This information can be retrieved from, http://gisweb.deq.virginia.gov/monapp/mon_data_retrieval_app.html#. Up until Fall 2007, DEQ also oversaw a group of citizen volunteers who monitored 10 sites in the Blacks Run and Cooks Creek watersheds. Volunteer water monitoring data can be obtained from <http://vadeq.easi.org/index.php?module=MonitorAnything&func=chngfilter>. Unfortunately, due to funding cuts within the State, there is no longer any funding to keep this volunteer monitoring program going. The DEQ contact for this program is Tara Sieber, TMDL Program Coordinator at the Valley Regional Office. The group of citizens is currently exploring other funding opportunities.

5 MCM 4: Construction Site Stormwater Runoff Control

Uncontrolled stormwater runoff from construction sites can significantly impact rivers, lakes and estuaries. Sediment in waterbodies from construction sites can reduce the amount of sunlight reaching aquatic plants, clog fish gills, smother aquatic habitat and spawning areas, and impede navigation. The City of Harrisonburg shall develop, implement, and enforce procedures to reduce pollutants in any stormwater runoff to the City's MS4 system from construction activities that result in a land disturbance of 10,000 square feet or greater.

5.1 BMP: Ordinance to Require Erosion & Sediment Controls

General Description:	The City of Harrisonburg will continue to implement its ordinance, which requires erosion and sediment controls on construction sites that disturb 10,000 square feet or greater.
BMP Goals and Objectives:	By controlling stormwater runoff from construction sites, the City and property owners can reduce the amount of harmful sediments entering local water bodies.
Past & Ongoing Achievements:	The City updated its Erosion & Sediment Control Ordinance and program procedures in September 2007. The Ordinance can be found in Section 10-4 of the City code.
Related Activities:	4.1BMP: Program to Detect and Eliminate Illicit Discharges 5.2BMP: Design and Construction Standards Manual 5.3BMP: Require VSMP Permit for Construction Activities
Authority:	City Code Section 10-4, Erosion & Sediment Control City of Harrisonburg Design and Construction Standards Manual 4VAC50-60-1240, Section I.B. 4VAC50-60-1240, Section II.B.4. 4VAC30-50, Stormwater Management Regulations
Contact Information:	Questions regarding the City's Erosion & Sediment Control Program and public comments should be directed to: City Engineer Planning & Community Development Department (540) 432-7700 danr@harrisonburgva.gov
Policies and Procedures:	The City Engineer from the Department of Planning & Community Development is the designated Erosion & Sediment Control Administrator. The Engineering Division oversees the site plan review process and oversees inspections and enforcement of the Erosion & Sediment Control Program. To date, a Site Development Technician, three Engineers, and

four Inspectors support the City's E&S Program.

In order to receive a Land Disturbing Permit, property owners and applicants for the permit must certify that they accept responsibility for carrying out a City approved Erosion & Sediment Control Plan, certify that they have secured a VSMP Stormwater Permit for Construction sites in accordance with requirements from VA DCR, and that the project's Stormwater Pollution Prevention Plan (SWPPP) includes measures for addressing post-construction stormwater quality.

Requirements for site inspection and enforcement control measures can be found in City Code Section 10-4.

The Engineering Division of the Department of Planning & Community Development shall maintain an inventory of all active and completed construction projects. The City Engineer and his staff will maintain records pertaining to site plan reviews, inspections, and enforcement. The Site Development Technician is responsible for tracking regulated land-disturbing activities and submitting it to the Public Works Planner for submission to DCR with each MS4 Annual Report. The following information shall be tracked:

- Total number of regulated land-disturbing activities
- Total disturbed acreage

The City relies on the Department of Conservation & Recreation's Local Program review to determine the consistency and compliance with the Virginia Erosion & Sediment Control Law and attendant regulations. The City will work with DCR to maintain consistency.

**Schedule
Activities:**

of

Activity	Schedule
Track regulated land-disturbing activities	Years 1 through 5
Maintain copies of inspections reports from construction inspections	Years 1 through 5
Receive and Consider Information submitted by Public	Years 1 through 5
Update ordinances and other mechanisms, as necessary	Years 1 through 5
Conduct construction site inspections and enforce violations as outlined in ordinance	Years 1 through 5
Evaluation	TBD by the Department of Conservation & Recreation

Other:

None

5.2 BMP: Design and Construction Standards Manual

General Description:	The City's Design and Construction Standards Manual (DCSM) establishes standards for the design and construction of facilities intended to be publicly accepted as a portion of subdivision or development plans within the limits of the City of Harrisonburg.
BMP Goals and Objectives:	To promote and encourage orderly and quality development. The Manual is intended to provide design and construction standards, which promote economic use of public and private funds while protecting environmental quality and the quality of life for the community.
Past & Ongoing Achievements:	Ongoing, see Policies and Procedures.
Related Activities:	5.1BMP: Ordinance to Require Erosion & Sediment Controls 6.1BMP: Ordinance to Address Post-Construction Runoff
Authority:	4VAC50-60-1240, Section I.B. 4VAC50-60-1240, Section II.B.4. City Code 10-2, Subdivision Ordinance City Code 7-2, Water Service Ordinance City Comprehensive Plan
Contact Information:	Questions regarding the Design and Construction Standards Manual or recommendations for revisions to the Manual can be directed to: Director of Community Development Department of Planning & Community Development (540) 432-7700 stacyt@harrisonburgva.gov OR City Engineer Department of Planning & Community Development (540) 432-7700 danr@harrisonburgva.gov
Policies and Procedures:	Construction plans for water supply, fire protection, sanitary sewer, storm drainage, erosion and sediment control, stormwater management, streets, bridges, and other related items shall conform to the standards of the DCSM. The DCSM can be accessed online at http://www.harrisonburgva.gov/index.php?id=design_manual . Comments and recommendations for revisions to the Manual are encouraged. An administrative committee shall review this manual and all proposals for change on an annual basis. The committee may make recommendations to City Council for changes to the Manual, which is subject to adoption following a public hearing.

Schedule of Activities:	Activity	Schedule
	Receive public comments and recommendations	Years 1 through 5
	Review DCSM annually and make recommendations to City Council as needed	Years 1 through 5

Other: None

5.3 BMP: Require VSMP Permit for Construction Activities

General Description: The City requires construction site operators to secure authorization to discharge stormwater from construction activities under a VSMP permit for construction activities that result in land disturbance greater than or equal to one acre. This includes construction activity disturbing less than one acre if that construction activity is part of a larger common plan of development that would disturb one acre or more.

BMP Goals and Objectives: To address water quality and prevent sediment and other pollutants from washing into nearby streams, rivers, lakes, and coastal waters from construction sites.

Past & Ongoing Achievements: None

Related Activities: 5.1BMP: Ordinance to Require Erosion & Sediment Controls
5.2BMP: Design and Construction Standards Manual
6.1BMP: Ordinance to Address Post-Construction Runoff

Authority: 4VAC50-60-1240, Section I.B.
4VAC50-60-1240, Section II.B.4.
4VAC50-60-1240, Section II.B.5.
City of Harrisonburg Design Standards and Construction Manual

Contact Information: Questions regarding the VSMP certification statement and land disturbing permits should be directed to:

City Engineer
Planning & Community Development Department
(540) 432-7700
danr@harrisonburgva.gov

Questions regarding application requirements and fees for VSMP General Permit (DCR01) in Harrisonburg should be directed to:

Staunton Office
Soil & Water Conservation Programs
Department of Conservation & Recreation

(540) 332-9991

Policies and Procedures: EPA and State regulations require that construction sites disturbing greater than one acre obtain a Virginia Stormwater Management Program (VSMP) permit. Currently, the VSMP permit may be obtained from the Virginia Department of Conservation & Recreation.

In order to receive a Land Disturbing Permit from the City of Harrisonburg, property owners and applicants for the permit must certify that they accept responsibility for carrying out a City approved Erosion & Sediment Control Plan, certify that they have secured a VSMP Stormwater Permit for Construction sites in accordance with requirements from VA DCR, and that the project's Stormwater Pollution Prevention Plan (SWPPP) includes measures for addressing post-construction stormwater quality.

The Department of Conservation & Recreation is responsible for receiving VSMP permits, for collecting fees, reviewing plans, conducting inspections and enforcing the Stormwater Management Program.

Records of the certification statement are maintained by the City Engineer and his staff. Records of site plans, review, inspections and enforcement are maintained by the DCR.

Schedule of Activities:		
	Activity	Schedule
	Require certification of secured VSMP permit	Years 1 through 5

Other: None

6 MCM 5: Post-Construction Stormwater Management in New Development & Redevelopment

The City of Harrisonburg shall develop, implement, and enforce procedures to address stormwater runoff to the regulated small MS4 from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a large common plan of development or sale, that discharges into the regulated small MS4.

6.1 *BMP: Ordinance to Address Post-Construction Runoff*

General Description: The City of Harrisonburg will establish an ordinance to address post-construction runoff from new development and redevelopment projects to ensure compliance with the Virginia Stormwater Management Act and attendant regulations.

BMP Goals and Objectives: To reduce the amount of nonpoint source pollutants entering our waterway.

Past & Ongoing Achievements: Ongoing, See Policies and Procedures

Related Activities: 5.3BMP: Require VSMP Permit for Construction Activities
6.2BMP: Ensure Adequate Long-Term Maintenance of Stormwater Management Facilities
6.3BMP: Track All Known Permanent Stormwater Management Facilities.

Authority: 4VAC50-60-1240, Section I.B.
4VAC50-60-1240, Section II.B.5.
4VAC50-60-10, Stormwater Management Regulations
City of Harrisonburg Design Standards and Construction Manual

Contact Information: Questions regarding application requirements and fees for VSMP General Permit (DCR01) in Harrisonburg should be directed to:

Staunton Office
Soil & Water Conservation Programs
Department of Conservation & Recreation
(540) 332-9991

Questions regarding the City's Stormwater Management Program for Construction Activities can be directed to:

City Engineer
Department of Planning & Community Development
(540) 432-7700
danr@harrisonburgva.gov

Questions regarding Stormwater facility maintenance and inspections can be directed to:

Public Works Planner
Public Works Department
(540) 434-5928
thanhd@harrisonburgva.gov

Policies and Procedures: In July 2007, DCR's MS4 Permit Manager provided the City of Harrisonburg with a temporary alternative mechanism that does not require the passage of a new ordinance by requires the following four items:

1. Assurance that land disturbing activities listed under MCM #5 obtain coverage under the VSMP permitting program prior to actual land disturbance.
2. Certification by the project owner that water quality is addressed in the SWPPP.
3. A long-term maintenance agreement for any post development BMP.
4. Tracking per general permit requirements if a post development BMP is in the Chesapeake Bay Watershed.

This alternative allows the City and other permittees to meet the conditions established by the MS4 Permit until the stormwater management regulations are finalized. The Engineering Division of the Department of Planning & Community Development has developed procedures to acquire and record data on all BMPs as required by 4VAC50-60-1240, Section II.B.5 for reporting to DCR. Details can be found in section 6.3BMP: Track All Known Permanent Stormwater Management Facilities.

Within 18 months of the finalization of expected new State Stormwater Management Regulations, City staff will establish a Stormwater Management Ordinance that meets new State requirements.

Schedule of Activities:

Activity	Schedule
Establish a Stormwater Management Ordinance that meets new State requirements	Within 18 months of State Regulation is finalized
Receive and Consider Information Submitted by Public	Years 1 through 5
Update ordinances and other mechanisms, as necessary	Years 1 through 5

Other: None

6.2 BMP: Ensure Adequate Long-Term Maintenance of Stormwater Management Facilities

General Description: The City will ensure long-term operation and maintenance by owners of stormwater management facilities that contribute to water quality through a Stormwater Management Facility/ BMP Maintenance Agreement.

BMP Goals and Objectives: To ensure that stormwater management facilities and BMPs are properly functioning as they were designed to control stormwater quantity and quality.

Past & Ongoing Achievements: Ongoing, See Policies and Procedures

Related Activities: 5.2BMP: Design and Construction Standards Manual
5.3BMP: Require VSMP Permit for Construction Activities
6.1BMP: Ordinance to Address Post-Construction Runoff

Authority: 4VAC50-60-1240, Section I.B.
4VAC50-60-1240, Section II.B.5.
4VAC50-60-10, Stormwater Management Regulations
City of Harrisonburg Design Standards and Construction Manual

Contact Information: Questions regarding the City's Stormwater Management Program for Construction Activities can be directed to:

City Engineer
Department of Planning & Community Development
(540) 432-7700
danr@harrisonburgva.gov

Questions regarding Stormwater facility maintenance and inspections can be directed to:

Public Works Planner
Public Works Department
(540) 434-5928
thanhd@harrisonburgva.gov

Policies and Procedures: During the site plan review process, property owners are required to develop a post-construction maintenance schedule for all stormwater management facilities and BMPs installed on their site. This maintenance schedule is to be included in the required Stormwater Management/ BMP Facilities Maintenance Agreement that will be recorded by deed in the land records of Rockingham County, Virginia.

The Maintenance Agreement details the responsibility of the property

owner to ensure proper function of stormwater management facilities and BMPs on their property through inspections and repair. The Maintenance Agreement also gives the City rights to inspect the stormwater facilities, and after notification of the property owner if no repairs by the property owner have been made within a specified time, then the City may perform work to repair the facility and be reimbursed.

The City Engineer is responsible for overseeing the site plan review process including recordation of the Stormwater Management/ BMP Facilities Maintenance Agreements. The Public Works Planner will oversee the process for long term post construction inspection.

Schedule Activities:	of	Activity	Schedule
		Continue operations and explore opportunities for improvement	Years 1 through 5

Other: None

6.3 BMP: Track All Known Permanent Stormwater Management Facilities

General Description: The City will track all known permanent stormwater management facilities that discharge to the regulated small MS4.

BMP Goals and Objectives: To collect information that will help City staff later ensure that the facilities are property functioning to protect water quality.

Related Activities: 6.2BMP: Ensure Adequate Long-Term Maintenance of Stormwater Management Facilities

Authority: 4VAC50-60-1240, Section I.B.
4VAC50-60-1240, Section II.B.5.

Contact Information: Questions regarding known stormwater management facilities should be directed to:

City Engineer
Planning & Community Development Department
(540) 432-7700
danr@harrisonburgva.gov

OR

Public Works Planner
Public Works Department
(540) 434-5928

thanhd@harrisonburgva.gov

Policies and Procedures: The City's Engineering Division is responsible for tracking all new permanent stormwater management facilities that discharge to the regulated small MS4. The Engineering Division will use a database to track the information and submit it for the MS4 Program Annual Report. This information will also be utilized to oversee adequate long-term maintenance of stormwater management facilities.

The Public Works Department will be responsible for identifying and tracking existing stormwater management facilities.

The Engineering Division and Public Works Department will record:

- Type of structural stormwater management facility installed as defined in the Virginia Stormwater Management Handbook
- Geographic location (HUC)
- Where applicable, the impaired surface water that the stormwater management facility is discharging into, and
- Number of acres treated

Schedule Activities:

of

Activity	Schedule
Track all new stormwater management facilities that require a maintenance agreement per new requirements	Years 1 through 5
Develop a list of all known city-owned facilities	Year 1
Inspect and verify details regarding city-owned SW facilities	Year 1 through 3

Other: None

7 MCM 6: Pollution Prevention/ Good Housekeeping for Municipal Operations

Maintenance encompasses a large variety of facilities and activities necessary to operate and maintain the MS4 infrastructure, which include streets, facilities, and the storm drains system. Maintenance activities are typically designed to maintain a certain level of service to maintain the aesthetics of public areas, provide public safety, maintain public infrastructure, and provide flood management. However, additional considerations for stormwater quality protection are also needed.

The City of Harrisonburg and its departments has developed and implemented operation and maintenance programs that have the ultimate goal of preventing or reducing pollutant runoff from municipal operations.

7.1 *BMP: Public Facilities Operation & Maintenance*

7.1.1 Training City Staff on Stormwater Pollution

General Description:	The City of Harrisonburg and its departments will develop and implement training programs on the impacts of stormwater pollution on our local waterways and how municipal operations might impact stormwater quality.
BMP Goals and Objectives:	Training programs are intended to help City staff realize how their work might impact our waterways. City staff can work together to improve and/or make changes to existing operations to limit stormwater pollution.
Past & Ongoing Achievements:	Ongoing, safety and departmental training on Pollution Prevention and Good Housekeeping are held regularly by each department.
Related Activities:	7.1BMP: Public Facilities Operation & Maintenance 7.2BMP: Stormwater Infrastructure Operation & Maintenance 7.3BMP: Public Streets Operation & Maintenance
Authority:	4VAC50-60-1240, Section I.B.3 4VAC50-60-1240, Section II.B.6.
Contact Information:	Questions regarding the City's Prevention Stormwater Pollution for employees should be directed to: Public Works Planner Public Works Department (540) 434-5928 thanhd@harrisonburgva.gov Questions regarding specific Pollution Prevention, Good Housekeeping, and Safety Trainings can also be directed to each respective department.

Policies and Procedures: Conduct training sessions to educate employees to prevent and reduce stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and MS4 maintenance.

Schedule of Activities:	Activity	Schedule
	Continue Pollution Prevention, Good Housekeeping, and Safety Trainings monthly or annually as determined by each department.	Years 1 through 5
	Conduct stormwater specific training for each City department at least once during the permit cycle	Years 1 through 5

Other: Resources: US EPA's National Menu of Stormwater Best Management Practices, Maine NEMO (<http://www.mainenemo.org/about.htm>)

7.1.2 Fuel/ Oil Storage Maintenance & Waste Oil Heating Systems

General Description: The City will maintain all fuel and oil storage areas in accordance with current standards. The City also uses waste oil heating systems to supplement central oil heating systems.

BMP Goals and Objectives: Storing fuels and fueling operations for municipal vehicles can generate spills and leaks of fuel and heavy metals. If these spills and leaks are washed into the storm drain system they can impair the water quality of nearby water bodies. This BMP will prevent fuel and oil spills and eliminate improper disposal of oil into our waterways.

Past & Ongoing Achievements: Public Works collects and utilized 3,000 gallons of waste oil from its residential collection program. Another 3,500 gallons of oil is collected from Public Transit operations. All of this oil is used to heat buildings at the Public Works and Public Transit departments.

Related Activities: 3.10BMP: Household Hazardous Waste Collection & Used Oil Recycling Program
7.1BMP: Public Facilities Operation & Maintenance

Authority: 4VAC50-60-1240, Section I.B.
4VAC50-60-1240, Section II.B.3.
4VAC50-60-1240, Section II.B.6.

Contact Information: Questions regarding waste oil collection and storage from servicing all City vehicles at the Public Transit Department, as well as maintenance of the fueling stations can be directed to:

Shop Supervisor
Public Transportation Department
(540) 432-0492
charlieb@harrisonburgva.gov

Questions regarding waste oil collection and storage from the City's residential used oil collection program can be directed to:

Solid Waste Superintendent
Public Works Department
(540) 434-5928
charlieh@harrisonburgva.gov

Policies and Procedures: The Mosby Road facility has an underground leak detection device, Veeder-Root TLS-350 UST monitoring system, which monitors the fuel storage tanks and alerts staff if a problem arises. Each of the fueling stations (gas pumps) located on E. Mosby Road, E. Washington Street, and Chicago Avenue have automatic shut off mechanisms to prevent large spills in the event of an accident. The City's Public Transit Department is responsible for maintaining the operation of the fueling stations.

The three fueling stations have a concrete impervious surface beneath them and a roof above them. Spill absorbency stations are located next to all fueling stations. The City conducts training to educate employees about fuel/ oil handling and clean up responses.

Waste oil is collected from residential recycling program. The Transit Department, which services all City vehicles, collects waste oil during vehicle maintenance for use in the waste oil heating system. For more information please see 3.10BMP: Household Hazardous Waste Collection & Used Oil Recycling Program.

Schedule Activities:

of	
Activity	Schedule
Continue operations and explore opportunities for improvement	Years 1 through 5
Continue training staff on proper fueling procedures and fuel storage	Years 1 through 5

Other: None

7.1.3 Maintain Current Fleet Wash Operations

General Description: City fleet vehicles primarily utilize the car/bus wash located at the Public Transportation Department. Two additional facilities are available at Mosby Road and the Heritage Golf Course maintenance facility.

BMP Goals and Objectives: By containing washing operations in appropriately designated areas, dry weather runoff contaminated with detergents, oils, grease, and heavy metals can be kept out of our local waterways.

Related Activities: 7.1BMP: Public Facilities Operation & Maintenance
7.2BMP: Stormwater Infrastructure Operation & Maintenance
7.3BMP: Public Streets Operation & Maintenance

Authority: 4VAC50-60-1240, Section I.B.
4VAC50-60-1240, Section II.B.6.

Contact Information: Questions regarding the wash operation at the Mosby Road facility can be directed to:

Street Superintendent
Public Works Department
(540) 434-5928
kennyk@harrisonburgva.gov

Questions regarding the wash operation at the Mosby Road facility can be directed to:

Golf Course Superintendent
(540) 433-1681

Questions regarding the wash operation at the Public Transportation Department can be directed to:

Shop Supervisor
Public Transportation Department
(540) 432-0492
charlieb@ci.harrisonuburg.va.us

Policies and Procedures: The Mosby Road operation includes an indoor facility as well as an outside wash area, which both capture the used water and filters it through an underground separation system. The filtered water is then output into the sanitary sewer system.

The other wash operation is located at the Public Transportation Department. This system washes the majority of the City's vehicles. This operation has a reclaim and wastewater recycle system, in which used water is caught, filtered, and reused. This process greatly reduces water use, eliminates the sediment runoff, and large amount of wastewater produced from normal fleet wash operations. Used water is also filtered through an underground separation system and output into the sanitary sewer system.

All City vehicles are washed at one of these two facilities.

Schedule	of	Activity	Schedule
-----------------	-----------	-----------------	-----------------

Activities:	Continue operations and explore opportunities for improvement	Years 1 through 5
--------------------	---	-------------------

Other: None

7.1.4 Parks Operation & Maintenance

General Description: The City shall continue to maintain City Parks and encourage citizens to prevent pollutants and litter from entering the City's storm drain system and receiving waters.

BMP Goals and Objectives: To keep pollutants and litter generated within the Parks from entering the City's storm drain system and receiving waters.

Past & Ongoing Achievements: Continuous. Also see Section 3.13BMP: Pet Waste Management

Related Activities:

- 3.13BMP: Pet Waste Management
- 3.2BMP: Clean Stream Campaign
- 3.3BMP: General Public Brochures & Recreational Guides
- 3.8BMP: Educational Programs – K-12 and University Partnerships
- 3.14BMP: Streamside Plantings & Other Community Projects
- 7.1BMP: Public Facilities Operation & Maintenance
- 7.2BMP: Stormwater Infrastructure Operation & Maintenance

Authority: 4VAC50-60-1240, Section I.B.
4VAC50-60-1240, Section II.B.6.

Contact Information: Questions regarding the Parks Operation & Maintenance procedures and plans should be directed to:

Parks Superintendent
Parks & Recreation Department
(540) 433-9168
Tedp@harrisonburgva.gov

Policies and Procedures: The City of Harrisonburg has 9 parks that are maintained by the City. Trash enclosures are available at all park facilities as well as pet waste disposal stations provided with bags at 7 parks of the 9 parks. Each of these receptacles are emptied each day or at minimum each week depending on the amount of park usage.

Public restrooms located in the City Parks all have floor drain connections to the City's sanitary sewer with the exception of Riven Rock. Riven Rock is located outside of City limits near the George Washington National Forest. This location has restrooms with holding tanks that are cleaned out by a hired septic company.

The athletic fields owned by the City uses automatic irrigation to help

conserve water. Some parks also have raingardens and other stormwater management facilities on them with educational signage. There are proposals for additional signage to be installed along streambanks that have been planted or repaired.

Schedule of Activities:	Activity	Schedule
	Continue operations and explore opportunities for improvement	Years 1 through 5

Other: None

7.1.5 Maintenance of Public Swimming Pool

General Description: The public swimming pool located at Westover Park is maintained by the Parks & Recreation Department.

BMP Goals and Objectives: Proper maintenance of the swimming pool and proper chlorinated water disposal will ensure that our local waterways are protected from water pollution.

Past & Ongoing Achievements: Continuous, see Policies and Procedures.

Related Activities: None

Authority: 4VAC50-60-1240, Section I.B.
4VAC50-60-1240, Section II.B.6.

Contact Information: Questions regarding the maintenance of the City's Public Swimming Pool should be directed to:

Pool Supervisor
Parks & Recreation Department
(540) 433-2474
brianm@harrisonburgva.gov

Policies and Procedures: The Public Swimming Pool is partially drained during the month of May. Pool water is drained into the City's sanitary sewer line for proper treatment. For more detailed procedures regarding pool maintenance please contact the Pool Supervisor.

Schedule of Activities:	Activity	Schedule
	Continue operations and explore opportunities for improvement	Years 1 through 5

Other: None

7.1.6 Vegetation in City Parks & Properties

General Description: The City shall continue to pursue alternative landscaping such as streamside buffers, reduced mowing frequency, and use of raingardens to improve the quality of stormwater runoff from City properties.

BMP Goals and Objectives: To reduce the quantity of stormwater runoff and improve the quality of stormwater runoff. Vegetation can help absorb water and filter out pollutants. Vegetation can also help with temperature control of stormwater and water in the streams by providing shade.

Past & Ongoing Achievements: Please visit this webpage for more information on past and current planting projects: <http://www.harrisonburgva.gov/index.php?id=1184>

Related Activities: 7.1BMP: Public Facilities Operation & Maintenance
7.2BMP: Stormwater Infrastructure Operation & Maintenance
7.3BMP: Public Streets Operation & Maintenance

Authority: 4VAC50-60-1240, Section I.B.
4VAC50-60-1240, Section II.B.6.

Contact Information: Questions regarding the vegetation in City Parks and Properties can be directed to:

Parks Superintendent
Parks & Recreation Department
(540) 433-9168
tedp@harrisonburgva.gov

OR

Stream Health Coordinator
Parks & Recreation Department
(540) 437-1258
justin.showalter@harrisonburgva.gov

Policies and Procedures: No mow zones have been established along the stream in park properties, in addition to an increased tree planting throughout the parks. The Parks Superintendent generally budgets \$1,000 to \$2,000 each year for additional trees and plants in City Parks. In 2007, about 75 new trees were planted.

The Parks Superintendent and Stream Health Coordinator, with assistance from other City departments and citizen volunteers, continually work to identify new opportunities for increased or improved vegetation. The City also receives assistance from volunteer groups to remove invasive species and collaborate on special planting projects.

Schedule of Activities:	Activity	Schedule
	Continue operations and explore	Years 1 through 5

opportunities for improvement	
-------------------------------	--

Other: None

7.1.7 Pesticide, Herbicide, and Fertilizer Application & Management

General Description: City staff that applies pesticides, herbicides and fertilizers on public right-of-ways or City owned and operated facilities are properly trained and certified.

BMP Goals and Objectives: To reduce pollutants associated with the application of pesticides, herbicides, and fertilizer.

Past & Ongoing Achievements: Continuous, see Policies and Procedures.

Related Activities: 7.1BMP: Public Facilities Operation & Maintenance
7.2BMP: Stormwater Infrastructure Operation & Maintenance
7.3BMP: Public Streets Operation & Maintenance

Authority: 4VAC50-60-1240, Section I.B.
4VAC50-60-1240, Section II.B.6.

Contact Information: Questions regarding Pesticide, Herbicide and Fertilizer Application & Management within City Parks can be directed to:

Parks Superintendent
Parks & Recreation Department
(540) 433-9168
Tedp@harrisonburgva.gov

OR within other city right-of-way to:

Street Superintendent
Public Works Department
(540) 434-5928
kennyk@harrisonburgva.gov

Policies and Procedures: Fertilizers, herbicides, and pesticides are used minimally on City property. All persons who apply these chemicals are licensed applicators by the State of Virginia. The Parks & Recreation Department have about 5 licensed applicators on staff. Additionally, care is taken when selecting the type of chemicals used and where. Fertilizer is only applied on athletic fields, which need to be maintained due to high traffic and safety purposes. Additionally, natural chemicals and controls are preferred over synthetics. For example, to control the grub problem in some City parks, staff have used natural milky spore to control the grub population.

Fertilizers, herbicides, and pesticides are all stored undercover in storage areas.

Schedule of Activities:	Activity	Schedule
	Continue operations and explore opportunities for improvement	Years 1 through 5

Other: None

7.1.8 Evaluate All Properties Owned/Operated

General Description: The City shall evaluate all properties owned or operated by the City that are not covered under a separate VPDES permit for potential sources of pollutants identified in TMDLs.

BMP Goals and Objectives: To reduce pollutants associated with the operations of City owned facilities.

Past & Ongoing Achievements: Continuous, see Policies and Procedures.

Related Activities: 7.1BMP: Public Facilities Operation & Maintenance
7.2BMP: Stormwater Infrastructure Operation & Maintenance
7.3BMP: Public Streets Operation & Maintenance

Authority: 4VAC50-60-1240, Section I.B.6
4VAC50-60-1240, Section II.B.6.

Contact Information: Questions regarding evaluation of all properties owned by the City of Harrisonburg for potential sources of pollutants identified by TMDLs can be directed to:

Public Works Planner
Public Works Department
(540) 434-5928
thanhd@harrisonburgva.gov

Policies and Procedures: The Public Works Planner will work with representatives from each department to evaluate properties owned and operated by the City of Harrisonburg for potential pollutants identified within TMDLs. Per 4VAC50-60-1240, Section I.B.6, within three years City staff shall have conducted a site review and characterization of runoff for properties where staff have determined that the pollutants identified in TMDLs is currently stored, or has been transferred, transported or historically disposed of in a manner that would expose it to precipitation.

See 4VAC50-60-1240, Section I.B.6 for detailed schedule of procedures.

Schedule of Activities:	Activity	Schedule
	Have completed site reviews and characterization of runoff per Policies & Procedures	Year 3

Other: None

7.2 BMP: Stormwater Infrastructure Operation & Maintenance

7.2.1 Storm Drain Cleaning/ Inspection Program

General Description: The City will maintain and promote an unobstructed storm drain system and prevent sediment from entering the stream to the maximum extent practicable.

BMP Goals and Objectives: To promote an unobstructed storm drain system and prevent sediment from entering the stream to the maximum extent practicable Blacks Run is impaired due to too much sediment.

Past & Ongoing Achievements: Continuous, see Policies and Procedures.

Related Activities: 7.1BMP: Public Facilities Operation & Maintenance
7.2BMP: Stormwater Infrastructure Operation & Maintenance
7.3BMP: Public Streets Operation & Maintenance

Authority: 4VAC50-60-1240, Section I.B.
4VAC50-60-1240, Section II.B.6.

Contact Information: Questions regarding the Storm Drain Cleaning Program should be directed to:

Street Superintendent
Public Works Department
(540) 434-5928
kennyk@harrisonburgva.gov

Policies and Procedures: The storm drain maintenance crew currently uses block maps to identify the locations of storm drain structures located within the City right-of-way and easements specifically assigned to the City and designated for drainage. The City maintains an annual schedule of cleaning storm drains and inlets. Ditch lines that are on City right-of-ways are monitored and build up of materials removed. Each month between 25-30 storm drain structures are inspected and 4-6 of them require notable cleaning. Cleaning is completed using the City owned flush truck. The flush truck is also on-call to assist in the cleanup of spills and maintenance needs of storm structures not on the regular schedule.

The Street Superintendent maintains records of the locations and cleaning operations performed.

Schedule of Activities:	Activity	Schedule
	Continue operations and explore opportunities for improvement	Years 1 through 5

Other: None

7.3 BMP: Public Streets Operation & Maintenance

7.3.1 Street Sweeping Program

General Description: Streets, roads, highways and parking lots accumulate significant amounts of pollutants that contribute to stormwater pollutant runoff to surface waters. The City will minimize pollutants, including sediment, debris, trash, road salt, and trace metals, from entering surface waters by maintaining a street sweeping program.

BMP Goals and Objectives: The City maintains the street sweeping program to reduce the sediment, pollutants, and debris that flow through the storm drain system and eventually into our streams.

Past & Ongoing Achievements: The City acquired a second street sweeper in December 2006 through a VA DCR WQIF Grant. In 2006, one street sweeper traveled 4262 lane miles, and collected 238.5 tons of debris from City streets.

Related Activities: 7.1BMP: Public Facilities Operation & Maintenance
7.2BMP: Stormwater Infrastructure Operation & Maintenance
7.3BMP: Public Streets Operation & Maintenance

Authority: 4VAC50-60-1240, Section I.B.
4VAC50-60-1240, Section II.B.6.

Contact Information: Questions regarding the Street Sweeper Program can be directed to:

Street Superintendent
Public Works Department
(540) 434-5928
kennyk@harrisonburgva.gov

Policies and Procedures: The City's Public Works Department's Street Division maintains the street sweeper program. The City owns and operates two regenerative air sweepers. One street sweeper is operated during daytime hours of 7:30am to 4:00pm. Its primary area of operation is within the residential communities and outlying streets. It covers about 18-20 lane miles each day it operates. This street sweeper also assists in performing clean up responsibilities for special event activities. The second street sweeper operates during the hours

of 4:00am-12pm each day through the downtown areas and along major streets.

It is the responsibility of the street sweeper operator to perform daily walk around and maintenance check. The debris picked up by the street sweeper will be disposed of at the Rockingham County landfill where it will be used as cover.

The street sweeper operators submit reports on lane miles traveled and cubic yards of debris collected each day to the Street Superintendent. The Street Superintendent is responsible for keeping records.

Schedule of Activities:	Activity	Schedule
	Continue operations and explore opportunities for improvement	Years 1 through 5

Other: None

7.3.2 Salt/Sand Storage and Use

General Description: Salt and sand are applied to City roadways to reduce the amount of ice during winter storm events. City staff shall maintain equipment and be trained to properly store and use road salt and sand.

BMP Goals and Objectives: To reduce the impact of road salt used during a winter storm to the maximum extent practicable. Improper storage of deicing materials can cause salts to come into contact with stormwater and migrate into the ground water used for public water supplies and also contaminate surface waters.

Past & Ongoing Achievements: The Park View location has installed a catch basin to increase the effectiveness of the storage system.

Related Activities: 7.1BMP: Public Facilities Operation & Maintenance
7.2BMP: Stormwater Infrastructure Operation & Maintenance
7.3BMP: Public Streets Operation & Maintenance

Authority: 4VAC50-60-1240, Section I.B.
4VAC50-60-1240, Section II.B.6.

Contact Information: Questions regarding the storage and use of road salt and sand can be directed to:

Street Superintendent
Public Works Department
(540) 434-5928
kennyk@harrisonburgva.gov

Policies and Procedures: The City operates two salt and sand storage facilities. 1) Mosby Road 2) Park View. Both storage facilities are under roof to prevent stormwater from entering the storage area. Both facilities are constantly cleaned during use to remove any overflow substance and therefore minimize the possibility of runoff into storm systems.

Each Fall, the Public Works Department conducts a week-long process of inspecting and calibrating all of its Snow & Ice Equipment as well as a full-day “Dry Run” during which all staff involved in snow removal go through refresher training and equipment is further inspected by staff from the Public Transportation Department. During this refresher, operational procedures are reviewed in an effort to increase snow removal efficiency and to minimize the unnecessary use of salting products.

Following a storm event during which salt and sand are applied to the roads, the Street Sweepers will continue their runs throughout the City to pick up salt, sand, and other road debris to keep them from entering the local stream.

Schedule Activities:	of	Activity	Schedule
		Continue operations and explore opportunities for improvement	Years 1 through 5

Other: None

8 Persons Responsible for Coordinating Small MS4 Stormwater Management Program

The persons responsible for implementing parts of the small MS4 stormwater management program and their contact information are listed within the previous sections describing BMPs.

Following is a list of primary contact persons for coordinating and implementing the program. These names will be updated as necessary and included as part of the annual report.

Principle Executive Officer:

Title: City Manager
Name: Kurt Hodgen
Address: 345 South Main Street
Harrisonburg, Virginia 22801
Phone: (540) 432-7701
Email: kurth@harrisonburgva.gov

Duly Authorized Representatives

Title: Public Works Planner **Staff Contact **
Name: Thanh Dang
Address: 320 East Mosby Road
Harrisonburg, Virginia 22801
Phone: (540) 434-5928
Email: thanhhd@harrisonburgva.gov

Title: Department of Public Works Director
Name: James Baker
Address: 320 East Mosby Road
Harrisonburg, Virginia 22801
Phone: (540) 434-5928
Email: jimb@harrisonburgva.gov